

MAIN CROATIAN URBAN CENTRES IN THE EUROPEAN NUTS REGIONALISATION CONTEXT

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with 2 figures and 4 tables in the text

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Summary

In the modern architecture of the European NUTS regions, Croatia as a whole represents a NUTS-1 region. Since 2013, two regions have been defined at NUTS-2 level: Continental Croatia and Adriatic Croatia. At NUTS-3 level, the principle applies that each of the 21 Croatian counties represents a NUTS-3 region, although only half of them have more than 150,000 inhabitants, and there are only eight large, functionally and logistically appropriate regional centres. These clearly demarcated, actual regional foci also exert gravitational influence beyond their counties, i.e. they

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are regional centres in the true sense of the word, according to NUTS-3 region criteria/needs. These are: Zagreb, Split, Rijeka, Osijek, Zadar and Slavonski Brod (cities with more than 50,000 residents, and with significant urban regions, generally over 100,000 inhabitants, 2011: City of Zagreb 688,724/1,100,000, Split 167,121/280,000, Rijeka 128,384/230,000, Osijek 84,104/130,000, Zadar 71,471/125,000, Slavonski Brod 53,531/100,000), with the seventh, the conurbation complex of Varaždin/Čakovec (38,839+15,147=53,896/100,000 residents), and the eighth, Pula (57,460/80,000) limited mainly to Istria [Istra] County.

These centres, influencing broader regional gravity complexes (county and beyond county; except Pula), with roughly 250,000 to 550,000 inhabitants, should form the main pillars and cores of the country's modern regional structure, because this is already the case in reality. The damaging effects of war, economic recession, transition and privatisation after 1991 have resulted in the fact that most of the former, somewhat stronger centres have been depopulated and economically weakened, while the levels of their central functions have been lowered, reducing their gravitational power practically to the sub-regional level (Karlovac-Duga Resa, Sisak-Petrinja, Šibenik-Vodice, Dubrovnik-Mokošica, Bjelovar; etc.). Only the conurbation of Vukovar-Vinkovci (26,468+32,029=65,497/90,000, in a demographically relatively prominent county, is potentially developing regional significance, however; it is significantly restricted, due to the close proximity of Osijek (Osijek – Vukovar 34 km, Osijek – Vinkovci 41 km). Consequently, there is contemporary orientation of the less populated counties: Dubrovnik-Neretva to Split, Šibenik-Knin to Zadar, Lika-Senj to Zadar (to a lesser extent to Rijeka), Požega-Slavonija to Slavonski Brod, Virovitica-Podravina to Osijek, Koprivnica-Križevci and Međimurje to Varaždin, Bjelovar-Bilogora, Krapina-Zagorje, Karlovac and Sisak-Moslavina to Zagreb.

Given the significant demographic corpus and relatively prominent number of counties gravitating to Zagreb, it would be advisable to revitalise the functional equipment of some individual cities in the wider area around Zagreb. This means accepting the necessity of equipping Karlovac/Sisak (two counties), and Bjelovar/Virovitica (two counties) for regional level functions, facilitating the revitalisation of these demographically and functionally weakened areas, which form individual NUTS-3 regions.

1 Introduction

The modern administrative-territorial organisation of the Republic of Croatia is based on the counties (20) and the City of Zagreb as the basic administrative-territorial units and their governing (and self-governing) functions. The capital city of Zagreb and the county centres form a network of leading Croatian towns, which vary in size and gravitational influence. This administrative-territorial model has been practiced since

the beginning of restructuring in 1993, and went through some changes in terms of modifying the borders of some counties in 1997. On existing administrative-territorial issues and possible changes and principles of regionalisation of the Croatian territory in relation to the main urban centres, several authors have submitted professional contributions: ČAVRAK 2002, 2011; MAGAŠ 2003, 2005, 2006, 2011, 2013, 2014; LOVRINČEVIĆ, MARIĆ & REICH 2005; LUKIĆ 2012; KOPRIĆ 2006; PAVIĆ 2006; ŠANTIĆ 2006; IVANIŠEVIĆ 2007; ĐULABIĆ 2007, 2008, 2012; DOBRIĆ 2008; KATIČIN 2014 etc. Also, several more or less relevant elaborations and studies, as well as legislative proposals, have been produced.

Taking into account the existing network of cities, the modern administrative-territorial model was created as an expression of aspirations for territorial differentiation and organisation of the country into units that would enable versatile economic, cultural and other types of development. Conceived along the lines of the county organisation of medieval Croatia, and later Croatia and Slavonia [Slavonija] under Habsburg rule, or within the dual monarchy as the Austrian-Hungarian Empire before the First World War (at which time Austrian Dalmatia [Dalmacija] was structured in districts, or counties), the model resulted in the establishment of 20 counties and the City of Zagreb. Initial proposals in 1992, for 10 to 12 counties, which would be distributed evenly throughout the area of contemporary Republic of Croatia, within the limits of influence of the same number of leading cities, were not accepted. In fact, by means of democratic debate among various parties, political and other bodies, and often the particularistic demands of smaller units and cities, etc., the final outcome was the designation of 20 counties and the City of Zagreb at the end of 1992. At the same time, the number of municipalities (including newly structured administrative towns) increased almost fivefold compared to the previous number of about 115 during the time of Socialist Croatia within Yugoslavia in the period after 1961.

Recent political and economic circumstances, in particular the construction of the modern highway network, marked new differentiation between settlements. Today, seven or eight leading Croatian cities have prominently sized urban regions. They form the basis of a contemporaneous network of socio-economic groupings, areal-temporal spatial convergence, and gravitational relations, etc.

2 Leading cities and the administrative-territorial model in contemporary Croatia

All Croatian cities with over 25,000 inhabitants in 2011, excluding the satellite of Zagreb (Sesvete and Velika Gorica), are county centres (Pula shares this function with Pazin). These cities mostly have relatively small populations, and only seven of them (without Sesvete) exceed 50,000 inhabitants (in 1910 only three; Table 1,2), with the

stronger gravitational influence and level of equipment of central function institutions (Tables 2 and 3). Most of them (except Zadar) experienced population decline in the period 2001 to 2011 (Table 1), as result of poor demographic characteristics (natural decline, and a variable, often negative migration balance), which was also true of the previous period, 1991 to 2001, due to war (1991-1995) and post-war events.

Table 1: Main Croatian cities (with more than 25,000 citizens) – Population changes 2001-2011

No.	Urban settlement	Population 2001	Population 2011	Growth or decline		Urban region	
				No.	%	Population 2001	Population 2011
1.	Zagreb	691,724	688,163	-3,561	-0.5	1,100,000	1,100,000
2.	Split	175,140	167,121	-8,019	-4.6	290,000	280,000
3.	Rijeka	143,800	128,384	-15,416	-10.7	240,000	230,000
4.	Osijek	90,411	84,104	-6,307	-7.0	135,000	130,000
5.	Zadar	69,556	71,471	1,915	+2.8	120,000	125,000
6.	Pula	58,594	57,460	-1,134	-1.9	80,000	80,000
7.	Sesvete	44,914	54,085	9,171	+20.4	part of Zagreb urban region	
8.	Slavonski Brod	58,642	53,531	-5,111	-8.7	100,000	100,000
9.	Karlovac	49,082	46,833	-2,249	-4.6	80,000	70,000
10.	Varaždin	41,434	38,839	-2,595	-6.3	100,000	100,000
11.	Šibenik	37,060	34,302	-2,758	-7.4	55,000	50,000
12.	Sisak	36,785	33,322	-3,463	-9.4	75,000	70,000
13.	Vinkovci	33,239	32,029	-1,210	-3.6	75,000	70,000
14.	Velika Gorica	33,339	31,553	-1,786	-5.4	part of Zagreb urban region	
15.	Dubrovnik	30,436	28,434	-2,002	-6.6	55,000	50,000
16.	Bjelovar	27,783	27,024	-759	-2.7	50,000	50,000
17.	Vukovar	30,126	26,468	-3,658	-12.1	part of Vinkovci urban region	

Source: CROATIAN BUREAU OF STATISTICS, Population censuses 2001, 2011. Urban regions population estimated

Table 2: **Leading centres in Croatia by population, universities and the average significance of other central functions**

City	Population 1910	Population 2011	2011 urban region population	University > 5,000 students	University < 5,000 students	Central functions
ZAGREB	100,275	688,163	1,100,000	1	1	N+R
SPLIT	21,407	167,121	280,000	1		R
RIJEKA	67,875	128,384	230,000	1		R
OSIJEK	34,014	84,104	130,000	1		R
ZADAR	19,426	71,471	125,000	1		R
VARAŽDIN/Čakovec	13,844	38,839	100,000			R+C
SLAVONSKI BROD	13,659	53,531	100,000			R+C
PULA	59,610	57,460	80,000		1	C
KARLOVAC	16,667	46,833	70,000			C
SISAK	8,530	33,322	70,000			C
VINKOVCI/Vukovar	10,455	32,029	70,000			C
BJELOVAR	9,266	27,024	50,000			C
ŠIBENIK	14,195	34,302	50,000			C
DUBROVNIK	11,824	28,434	50,000		2	C
V. GORICA	(3,278)	(31,553)	(50,000)			C

N = national + more counties' significance, R = at least 2 counties, C = own county only

Source: CROATIAN BUREAU OF STATISTICS, Population censuses 1910, 2011. Urban regions population estimated

Table 3: **Leading Croatian centres by prevailing gravitational scope and significance of central functions**

City	Administration	Schools, universities	Health	Jurisdiction	Trade	Traffic/business	Employed persons	Banks, insurance	Security
ZAGREB	N, R	N, R	N, R	N, R	N, R	N, R	N, R	N, R	N, R
SPLIT	R	N, R	R	R	R	R	R	R	R
RIJEKA	R	N, R	R	R	R	R	R	R	R
OSIJEK	R	N, R	R	R	R	R	R	R	R
ZADAR	R, C	N, R	R	R	R	R	R, C	R	R
VARAŽDIN	R, C	C	R	R, C	R	R	R	R	R

continuation of Table 3:

City	Admini- stration	Schools, universities	Health	Juris- diction	Trade	Traffic/ business	Employed persons	Banks, insurance	Security
SLAVONSKI BROD	R,C	R, C	R	R, C	R,	R	R	R	R
Karlovac/ SISAK	R,C	R, C	C	R, C	C	R	C	C	R
Bjelovar	R,C	C	C	R, C	C	C	C	C	C
PULA	C	N, C	C	C	C	C	C	C	C
V. GORICA	C	C	C	C	C	N,R	R	C,R	C
Dubrovnik	C	N, C	R	C	C	C	C	C	C
Šibenik	C	C	C	C	C	R	C	C	C
VINKOVCI/ VUKOVAR	C	C	C	C	C	R	C	C	C

N = national + more counties' significance, R = at least 2 counties, C = own county only

The demographic and economic decline of the leading cities, which extended to even more intensive demographic decline in rural settlements, small towns and peripheral regions, is one of the causes of recent requirements for changes to the administrative-territorial organisation of the country, although there are no clear indications that this is actually the cause of depopulation and economic recession.

Instead of scientific and multidisciplinary clarifications of the reasons for the continuing decline in GDP and population, the government (2011-2015) has launched a variety of measures adopting and amending acts and other regulations that directly affect regional (county) and territorial-administrative organisation and development, as well as that of towns and peripheries. However, the optimal model of territorial-administrative differentiation, or regionalisation, based on the network of leading centres in functional, demographic, economic, logistic, traffic, and other terms, should have been defined first. Due to the size of the Republic of Croatia and its population, taking into account the EU NUTS-3 level of regionalisation, and in comparison with neighbouring countries (Hungary, Austria, Czechia, Slovakia, Poland etc.), this would have resulted in eight to ten, maximally twelve 3rd level regions.

3 Prerequisites defining the effective functional network of cities and regionalisation

There are two basic starting points for the potentially new, more appropriate, and optimally functional administrative-territorial reorganisation (regionalisation) of the country:

- (1) Proper evaluation of existing centres and their contemporary influence
- (2) Application of the parameters of EU regionalisation (NUTS-3)

The former is reflected in recognising and supporting the actual, current situation and gravity relations of centres, taking into account their demographic, economic, functional, geographical, historical, traffic and other significance. The latter relates to the need for harmonizing Croatian regionalisation within European regionalisation, including possible restructuring, particularly at NUTS-3 level. This means recognising and accepting the appropriate number of regions, each with a population of 150,000 to 800,000 (optimally 250,000 to 550,000 per region), taking into account strength, gravitational and logistical capabilities, i.e. the development achieved by leading Croatian urban centres, or foci of regional grouping and development.

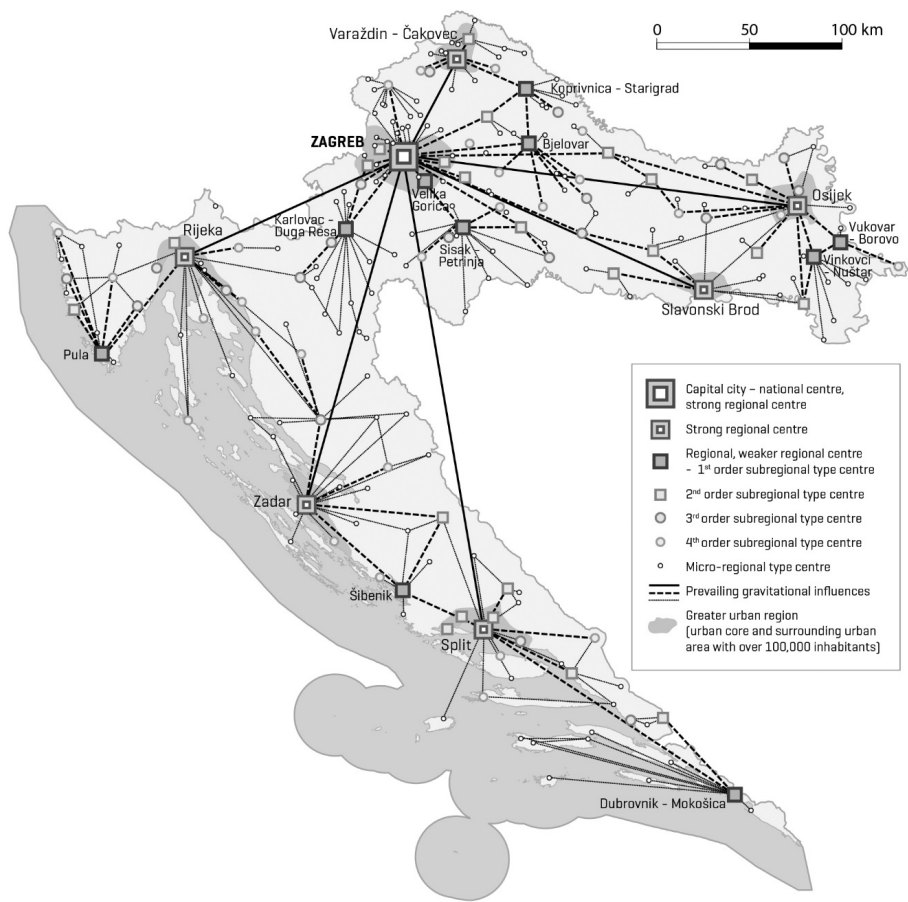
The first starting point, therefore, recognises and reflects the *de facto* situation, understood as the existing relationship of flexible, i.e. changeable values, primarily relating to demographic and economic indicators, or rather the central functions of leading centres, which form prominent gravitational zones of influence around them. Geographic and geo-traffic circumstances (size, distance, etc.) are particularly relevant, as well as geostrategic ones.

There are only six such clearly prominent centres in Croatia, regardless of the number of counties, which have gravitational significance beyond their counties: Zagreb, Split, Rijeka, Osijek, Zadar and Slavonski Brod (cities with over 50,000 inhabitants and with strong urban regions, generally over 100,000 inhabitants in 2011: City of Zagreb 688,724/1,100,000, Split 167,121/280,000, Rijeka 128,384/230,000, Osijek 84,104/130,000, Zadar 71,471/125,000, Slavonski Brod 53,531/100,000, with the seventh recognised conurbation complex of Varaždin-Čakovec (38,839+15,147=53,896/100,000) and the eighth, the specific area of Pula (57,460/80,000 residents) whose gravitational influence is limited mostly to the County of Istria.

These centres, which as a rule form broader regional gravitational complexes at the county and supra-county levels, with approximately 250,000 to 550,000 inhabitants (Table 4) should be the main pillars and basis of the modern regional structure of the country, because this is already the actual situation. In particular, the strong demographic concentration in and around Zagreb should be noted, where the Zagreb ring on the one hand, and the core City of Zagreb on the other, practically constitute a dual organically,

functionally and spatially permeated system, with the central city as one, and its unique metropolitan urban region as another NUTS-3 region. Also the marked depopulation of Split, Rijeka and Osijek should be taken into account, especially since 1991, as well as the demographic recovery and strengthening of Zadar, the former capital of Dalmatia, which was isolated from the rest of the country after the First World War and severely damaged in the Second World War. The current, significant economic recession, the weak, sometimes very adverse effects of transition and privatisation (from 1991 to the present day), accompanied by the fact that most of the former, rather stronger centres have been depopulated and economically weakened, and the levels of their central function institutions lowered, have actually reduced gravitational influence to the

Figure 1: **The modern regional centres scheme of Croatia** (Source: MAGAŠ 2013, p. 423)



sub-regional level (the conurbations of Karlovac-Duga Resa, Sisak-Petrinja, Šibenik-Vodice, Dubrovnik-Mokošica, and Bjelovar). In this regard, only the conurbation of Vukovar-Vinkovci (26,468+32,029=65,497/90.000 residents), in a demographically relatively prominent county, might develop potential regional significance, but the immediate vicinity of Osijek should also be taken into account (Osijek – Vukovar 34 km, Osijek – Vinkovci 41 km), as a particularly limiting factor.

Subsequently, the modern situation of gravitational orientation in some less populated counties in the Adriatic part of Croatia has emerged: Dubrovnik-Neretva to Split, Šibenik-Knin, mainly to Zadar and partly to Split, and Lika-Senj mainly to Zadar and to a lesser extent to Rijeka (Senj and partly Otočac), and in Continental Croatia: Požega-Slavonija to Slavonski Brod, Virovitica-Podravina to Osijek (and partly to Zagreb), Međimurje and Koprivnica-Križevci to Varaždin, Bjelovar-Bilogora, Sisak-Karlovac and Krapina-Zagorje to Zagreb (Fig. 1). This should be borne in mind, in contemporary circumstances, when for political reasons, the network of different offices at the state or regional level is restructured or even terminated in some counties. In particular, the existing overland distance, traffic isolation and peripherality of Dubrovnik and its surrounding area in relation to other parts of the country must be considered. Regardless of the lack of specific indicators, Dubrovnik should be assured functional and administrative support at the highest possible level. When distance is considered, the clearest possible model of isochronal zones around some centres must be acknowledged.

4 Application of EU regionalisation parameters (NUTS-3) in Croatia

Given the contemporary European NUTS regionalisation, after seven years of discussions with European authorities, particularly EUROSTAT, in 2007, and with the consent of EUROSTAT, Croatia decided on three regions at the EU NUTS-2 level (Adriatic, North West and Pannonian Croatia). With approximately 1.4 to 1.5 million people per region they were demographically uniform. However, after parliamentary elections in 2011 (in 2012), the new government pressed the EU for five regions (?!), and a new regionalisation concept for Croatia, with two (!) EU NUTS-2 level regions (Adriatic and Continental Croatia), was adopted! Obviously, EU arguments about the objective impossibility of introducing five NUTS-2 level regions led to a (too) radical solution and the introduction of only two regions, which were demographically extremely uneven. This was supported by political pressure from the capital, Zagreb, which demanded to be placed within an economically poorer area, and from Varaždin, which demanded not to be included in North-West Croatia alongside 'rich' Zagreb,

thus securing better conditions for obtaining EU funds. Continental Croatia, with almost three million residents (2011) is at the upper demographic limit of the EU NUTS-2 category, while Adriatic Croatia, with 1.4 million, is at the average level of NUTS-2 regions, which, in principle, should meet the size criterion of 0.8-3.0 million inhabitants.

At the NUTS-3 regions level, Croatia has so far proclaimed and formally practiced the principle that all Croatian counties (21) are NUTS-3 level regions, despite the fact that ten of them do not meet the demographic criterion of population size (150,000-800,000). However, by the end of 2014, at least formally, they had levels of state administration and status immediately below the national capital. In general, at this level, the question of Croatia's regional organisation remained open, sparking debate about efficient regionalisation and decentralisation. No scientific or wide open debates were held in order to shape an effective solution (re-organisation of counties into fewer, larger ones, perhaps half as many, the introduction of supra-counties, establishing regional coordination of existing counties, etc.). Mostly, there were just political objections that there were too many municipalities, administrative cities and even counties, while proposing a contradictory concept, often uncritically – that five or six regions in Croatia would be quite enough. So, many new regulations and even acts were hurried through after 2011, by which the government sought, apparently too radically, to reduce the number of first-level administrative-territorial units, i.e. administrative regions. Therefore there was no consensus on the optimal way of adapting to EU criteria, and the optimum number of regional complexes (the leading seven or eight cities, already evident in the Croatian territory), has not been yet decided. The diametrically opposite method of moving 'from one extreme to another' envisaged new re-organisation with five to six state offices, or de facto five to six new regions. An example in this respect is the contradictory Draft Act on Amendments to the Public Administration Act: it 'deconcentrates' by concentration, eliminating at least 15 county government offices (?!). It does not respect the EU principle of regionalisation, it is unsystematic, unaligned with the Constitution, unscientifically conceived, and gives no guarantees that the current situation will be improved.

This proposal, and some other regulations¹, do not recognise in scientific, objective terms all the cities, which have real regional power and size, and which already exist in the Croatian network of regional centres as places of primary importance. Apart from Zagreb, Split, Rijeka and Osijek, only Varaždin was recognised, while Zadar, which has double the population of Varaždin, and is in many ways stronger in traffic and functional terms and in some sectors of the economy, having a much wider territory, was not. The similar is true of Slavonski Brod, in the extensive area between Zagreb and Osijek, or of Pula, in the highly developed, affirmed Istria region. This concept

¹ For example, in relation to the Tax Administration Act, which entered into force on 1 January 2015, territorial organisation does not acknowledge important centres such as Zadar and Slavonski Brod, including Pula, but acknowledges the considerably demographically and spatially smaller centres of Varaždin and Karlovac.

departs from the accepted European organisation of Croatia (introduced by the same, current government!) in two NUTS-2 regions (Adriatic Croatia and Continental Croatia), counties as NUTS-3 level regions (which still needs to be aligned with the EU criteria discussed).

5 A proposal for a harmonised regional organisation with a network of Croatian leading urban centres

Regarding the territory of the Republic of Croatia as consistently harmonised EU NUTS-2 level regions, it is therefore necessary to determine at least eight demographically and gravitationally, i.e. functionally (administratively) maximally harmonised regions with centres in Zagreb (the City and city ring), Rijeka, Zadar, Split, Varaždin, Slavonski Brod and Osijek. Thus, the NUTS-2 level regions of Continental and Adriatic Croatia comprise 21 (14+7) Croatian counties formally (and in reality), articulated around a minimum of eight corresponding large, strong regional centres, making modern suitable NUTS-3 regions. By applying the criteria of optimal demographic uniformity (which is highly recommended for fairer distribution of European funds per capita), and population size (150,000-800,000), optimal regionalisation (Table 4) can be achieved. It is already happening in reality, and has been, or is being affirmed in many areas around these cities, although the administrative measures forced by the government, not only on smaller, but also on larger centres, have tried to take away previously acquired powers. Obviously, this shows political decision-making proceeding without the necessary scientific justification.

According to this simple, geographically, demographically and functionally optimal harmonised concept of regionalisation at NUTS-3 level (which is directly related to the basic data in Table 4), the north-western part of Adriatic Croatia, the Rijeka region, therefore, should include Kvarner and the mountainous area, with 505,000 inhabitants (2011), if Istria is (alternatively) included. In the central Adriatic part, the Zadar region should include North Dalmatia and Lika, with 330,000 inhabitants, and the south-eastern Split region should cover Central and South Dalmatia, with 578,000 inhabitants. These regional spatial units, which have already more or less materialised in reality, would be efficiently incorporated into the existing NUTS regionalisation network of the European Union. Classified as third-level units (NUTS-3), they would be effective components in the already formed NUTS-2 unit of Adriatic Croatia. However, the publicly proclaimed attitudes of Istria with its regional centre, Pula, as an acknowledged 3rd level EU region meeting the demographic criterion (208,000 residents in 2011), clearly point to the potential of or pressing need for formal definition of a self-standing region, i.e. resulting in a total of four regions in Adriatic Croatia.

At the very least, therefore, not only Split and Rijeka, but also Zadar and perhaps Pula, exercise the functions of prominent centres in a wider area within Adriatic Croatia, and in the national or state framework, and should be ranked appropriately within Croatia's spatial organisation and urban network.

In Continental Croatia, the regional complexes of the City of Zagreb, Zagreb ring, Varaždin, Slavonski Brod and Osijek have been clearly identified. As noted above, the need to increase the number of regions (possibly adding Karlovac-Sisak, Vinkovci-Vukovar, or Bjelovar-Virovitica) may be discussed, but there should be no talk of decreasing it.

Table 4: **Surface area and population of Croatian counties and wider regions (NUTS 2, 3), 2011**

Existing region (NUTS 2, 3) / county	Optimal future region (NUTS 3)/county	Land km ²	Sea km ²	Population	Population per/km ²	Administrative towns/cities	Municipalities	Number of settlements
City of Zagreb	City of Zagreb	641	-	790,017	1,232.5	1	0	70
Zagreb	Zagreb	3,060	-	317,606	103.8	9	25	694
Krapina-Zagorje	"	1,229	-	132,892	108.1	7	25	423
Zagreb	Zagreb	4,289	-	450,498	105.0	16	50	1,187
Varaždin	Varaždin	1,262	-	175,951	139.4	6	22	302
Koprivnica-Križevci	"	1,748	-	115,584	66.1	3	22	264
Medimurje	"	729	-	113,804	156.1	3	22	131
Varaždin	Varaždin	3,739	-	405,339	108.4	12	66	697
North-West Croatia		8,669	-	1,645,854	189.9	29	116	1,884
Bjelovar-Bilogora	Bjelovar-Virovitica	2,640	-	119,764	45.4	5	18	323
Virovitica-Podravina	"	2,024	-	84,836	41.9	3	13	188
Bjelovar-Virovitica	Bjelovar-Virovitica	4,664	-	204,600	43.9	8	31	511
Požega-Slavonija	Brod	1,823	-	78,034	42.8	5	5	277
Brod-Posavina	"	2,030	-	158,575	78.1	2	26	185
Slavonski Brod	Slavonski Brod	3,853	-	236,609	61.4	7	31	462
Osijek-Baranja	Osijek	4,155	-	305,032	73.4	7	35	263
Vukovar-Srijem	"	2,454	-	179,521	73.6	5	26	85
Osijek	Osijek	6,609	-	484,553	73.3	12	61	348
Karlovac	"	3,626	-	128,899	35.5	5	17	649
Sisak-Moslavina	Karlovac-Sisak	4,468	-	172,439	38.6	6	13	456

continuation of Table 4:

Existing region (NUTS 2, 3) / county	Optimal future region (NUTS 3)/county	Land km ²	Sea km ²	Population	Population per/km ²	Administrative towns/cities	Municipalities	Number of settlements
Karlovac-Sisak	Karlovac-Sisak	8,094	-	301,338	37.2	11	30	1,105
Central and Eastern (Pannonian) Croatia		23,220	-	1,227,100	52.8	38	153	2,426
CONTINENTAL CROATIA		31,889	-	2,872,954	90.1	67	269	4,310
Primorje-Gorski Kotar	Rijeka	3,588	4,339	296,195	82.6	14	22	510
Istria	"	2,813	3,581	208,055	74.0	10	31	655
Rijeka	Rijeka	6,401	8,920	504,250	78.8	24	53	1165
Lika-Senj	Zadar	5,353	541	50,927	9.5	4	8	255
Zadar	"	3,646	3,845	170,017	46.6	6	28	229
Šibenik-Knin	"	2,984	2,689	109,375	36.7	5	15	199
Zadar	Zadar	11,983	7,075	330,319	27.6	15	51	683
Split-Dalmatia	Split	4,540	9,504	454,798	100.2	16	39	368
Dubrovnik-Neretva	"	1,781	6,568	122,568	68.8	5	39	230
Split	Split	6,321	16,072	577,366	91.3	21	56	598
ADRIATIC CROATIA		24,705	31,067	1,411,935	57.2	60	160	2,446
REPUBLIC OF CROATIA		56,594	31,067	4,284,889	75.7	127	429	6,756

Sources: CROATIAN BUREAU OF STATISTICS; Population censuses 2001, 2011; MAGAS 2013, pp.304, 305

Thus, the existing model of county articulation should of necessity be adjusted cautiously and not too radically to EU criteria, through the most effective, gradual and well thought-out changes possible. In today's administrative-territorial organisation with 21 counties, balanced development has not been achieved, but there has been an emphasis on the strong concentration of resources, power and people, especially in the Zagreb metropolitan area. So, frequent proposals have been made for restructuring the existing system of local (municipalities and administrative cities/towns) and regional (county) self-governing units in order to achieve the optimal distribution of power and resources accompanied by a high degree of democracy and self-government, but also by a sufficiently strong state. 'Deconcentration', i.e. the dispersion of power at the national level cannot be achieved by reducing the current 20 offices of first order state administration to only five or six. The effects of concentration would be significantly higher than those of 'deconcentration' to which the government 2011-2015 frequently, usually only verbally, referred. Therefore, any proposal for the functional decentrali-

sation and administrative-territorial reorganisation of Croatia, including the territorial-regional network of state administration, should be based on several tenets:

- (1) That at least eight large cities attract the inhabitants of their wider natural areas to gravitate towards them.
- (2) That these cities perform central functions, not only for the counties whose centres they happen to be, but also for at least one neighbouring county.
- (3) That these cities have developed influential urban regions (generally over 100,000 residents) related to the central city or conurbation (with over 50,000 residents), and are the centres of counties with over 150,000 inhabitants.
- (4) That they already have appropriate development logistics and management plans.
- (5) That there is relevant spatial and temporal distance from other centres of the same level, i.e. distance is optimal and suitable in relation to the needs of citizens.

Figure 2: **Model for territorial articulation of Croatia in 8 (12) NUTS-3 regions**



In fact, according to the EU model of NUTS-3 regions, the existing nodal-functional centres, i.e. the centres of gravity, should be standardized and harmonized in the Croatian territory by appropriate, normative legislation. Of course, this can only happen following professional, scientific and democratic debate, recognising and appreciating the weight of arguments and facts regarding geographical gravitational regionalisation. This concept is shown as the de facto existing territorial articulation of regions at the country level (MAGAŠ 2013).

This defined regional concept of Croatia using the examples of Zagreb (City), the Zagreb ring, Varaždin, Slavonski Brod and Osijek in Continental Croatia, and Rijeka, Zadar and Split (perhaps even Pula) in Adriatic Croatia, as prominent (supra)regional centres, spatially, geo-trafficly, and economically, has clearly been recognised. With regard to what has already been discussed, it only remains to review the possibility/need/advisability of establishing a separate Istrian, i.e. Pula region. Similarly, through defining at least the regional complexes around Zagreb, Slavonski Brod, Varaždin and Osijek, other options could be potentially considered, depending on needs, creating between one and three additional regional complexes (perhaps Karlovac-Sisak, Vukovar-Vinkovci and Bjelovar-Virovitica) in Continental Croatia.

6 Recent problems in applying effective decentralisation and regionalisation

Such a scheme, based primarily on demographic, geographic, traffic, gravitational, and some historical and traditional requirements, faces several problems in Croatia today. On the one hand, there is the arbitrary approach, reminiscent of dogmatic political decisions dictated from 'up there', and on the other, there are particularist, party-based, parochial, local interests and other viewpoints. Sometimes, one gets the impression that these are the result of ignorance and dilettantism in the current phase of political management (2011-2015), which has spawned dogmatic, inefficient, expensive and destructive solutions for Croatia's economic and regional development.

Stereotypes and failure to overcome them are a great problem, or problems in accepting actual, scientifically based spatial and demographic indicators, in a democratic atmosphere. Smaller towns with weaker economic and gravitational forces are not in an objective position to exercise the role of first-class centres of European NUTS-3 level regions. They mostly record accelerated depopulation, with populations under 50,000; their urban regions generally have 60,000-70,000 inhabitants, in counties with under 150,000 inhabitants. In particular, they have no obvious gravitational influence outside their own county, and they do not have sufficient logistics groupings gathered around the university, economic and other cores. The failure to recognise existing development conditions in this respect complicates considerably the process of resolving this issue.

When the need for the maximum potential unification of future demographic regions is taken into account, it would be logical to group these areas around the previously mentioned larger, already affirmed gravitational centres and demographically stronger urban regions (8), in particular those, which, apart in their own counties, have a focal significance for one or more neighbouring counties, too. Thus, the failure to recognise the necessary, appropriate grouping of existing counties around well-established, i.e. demographically, gravitationally and logistically stronger regional centres (if it is really necessary to reduce the number of government offices, for example), is a salient problem in the process of establishing an efficient network, along with the contemporary regionalisation of the Republic of Croatia.

Another special, additional factor is the failure to recognise the need for demographic uniformity in regions at all levels, NUTS-1, -2 and -3. The third level of differentiation should strive to meet the size criterion accepted in Europe of 150,000-800,000 inhabitants per region (optimum 250,000-550,000), as much as possible, without insisting that regions have fewer than 150,000 or more than 800,000 inhabitants. Thus, according to European principles, the optimal allocation of European wealth through various funds, grants and other sources would be facilitated, taking into account the importance of even 'per capita' distribution in the broadest sense of the word.

7 Conclusion

Current approaches to the regionalisation and powers of the leading Croatian cities are directly prompted by contemporary debates about the administrative and territorial reorganisation of the Republic of Croatia. They arise from the need for a more effective, decentralised and appropriate regional development of the country. At the same time, criticisms have been expressed regarding the number of existing counties, administrative cities/towns and municipalities, which, according to many, is irrational, dysfunctional, and economically unsustainable. Instead of encouraging a necessary wide-ranging democratic debate on professional and scientific grounds, the political authorities, primarily the Croatian Government and individual parties in power, introduced amendments to certain acts in 2011, and even proposed changes to the Constitution. The public was confronted with a *fait accompli*, despite the resistance of many elements in society. Primarily this referred to the Draft Act on Amendments to the Public Administration Act (first debated in the Croatian Parliament at the end of 2014), and the Draft Act on Regional Development, but also a whole range of other legislation, which, without applying scientific, wider public or democratic approaches set about redefining the network of institutions in the judiciary, customs and tax services, in internal affairs, military, health care (hospitals network), education, science, with public companies and institutions (the postal service, railways, roads, forests, water, power supply, national and nature parks, etc.).

Considering that recent regional development processes in Croatia have resulted in clear recognition of at least eight regional centres, it would be necessary and useful, within any new concept, to recognise them as centres of a minimum of eight regions (nine with the City of Zagreb). So, models with fewer regions (4, 5 or 6) would be too radical, inappropriate and inadequate, because they would combine/mix levels (2 and 3) of EU NUTS regionalisation and enable the peripheralisation of large areas of Croatia, due to extreme concentration effects. It is also possible to adopt a more flexible approach to this issue by recognising more than seven or eight first order centres; adding Pula, in Adriatic Croatia, and Karlovac-Sisak and the conurbation of Vukovar-Vinkovci, as well as a possible differentiation of the Bjelovar-Virovitica area in Continental Croatia. In this way, the basic network of centres selected would define the potential number of regions in Croatia as a maximum of eleven or twelve with the City of Zagreb. In terms of their populations and the gravitational force of their centres, these regions would correspond to the European regions' NUTS-3 level. Gravitationally optimal reorganisation would have a positive impact on the demographic, economic and geotrafical, i.e. overall development of the country.

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